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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/680,286	10/06/2000	Eric N. Paton	ENP-101	8985
24117	7590	02/12/2004	EXAMINER	
ERIC PATON 498 RIO GRANDE CT MORGAN HILL, CA 95037			NOLAND, THOMAS	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/680,286

Applicant(s)

PATON, ERIC N.

Examiner

Thomas P. Noland

Art Unit

2856

--Th MAILING DATE of this communication appears on th cover sh et with the correspondence address --

THE REPLY FILED FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
- ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☒ they raise the issue of new matter (see Note below);
- (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☐ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: _____.

Claim(s) withdrawn from consideration: _____.

8. ☒ The drawing correction filed on 17 November 2003 is a) ☒ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☒ Other: A proposed allowable claim is attached as requested.

Continuation of 2. NOTE: The change from "capital goods" to semiconductor substrate in the claims and specification raises a new issue and the issue of new matter since the use of the invention to monitor a semiconductor substrate per se was not specifically heretofore claimed or disclosed even though it may have been generically disclosed.

Continuation of 5. does NOT place the application in condition for allowance because: directed to nonentered subject matter and for reasons equivalent to those given in the final rejection. Applicant's response does not eliminate the 35 U.S.C. 112(2) issue regarding critical parameters.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Noland whose telephone number is (571) 272-2202. The examiner can normally be reached on weekdays from 9:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Hezron E. Williams, can be reached on (571) 272-2208.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Thomas P. Noland
Primary Examiner
Art Unit 2856

Continuation of 10. The application would be allowable over the prior art of record if the following amendment is made. (Note the claim and specification amendments filed Nov. 17, 2003 were not entered.) Please do not propose amending the specification and drawings unless obvious informalities are noted. A 3 month time extension fee will be required and the response must be filed by March 4, 2004 to avoid abandonment. It is suggested that the response include an authorization to correct obvious minor informalities by examiner's amendment.

Proposed response:

Cancel claims 18-33.

Add new claim 34 as follows:

Claims 1-33 (cancelled)

^{34 New}
Claim ~~18 (currently amended)~~ - An apparatus for measuring critical parameters used in ~~an integrated circuit or microelectronic device~~ manufacturing of ~~capital goods semiconductor substrate~~ in microelectronic processing without evasive interruptions to manufacturing equipment, the ~~critical~~ parameters selected from the group consisting of temperature, liquid and gas flow rate, distance, particles, humidity, pressure, viscosity, radiation, velocity, density, acceleration, stress/strain, pH, the ~~critical parameters related to chemical/material analysis techniques~~

determined using techniques

selected from the group consisting of Energy Dispersive x-ray Spectroscopy (EDS), Cathodoluminescence (CL), X-ray Photoelectron Spectroscopy (XPS), Ultraviolet Photoelectron Spectroscopy (UPS), Auger, Electron Spectroscopy (AES), Reflection High Energy Electron Diffraction (REELS), X-ray Fluorescence (XRF), Photoluminescence (PL), Modulation Spectroscopy, Variable Angle Spectroscopic Ellipsometry (VASE), Fourier Transform Infrared Spectroscopy (FTIR), Raman Spectroscopy, Solid State Nuclear Magnetic Resonance (NMR), Rutherford Backscattering Spectroscopy (RBS), Elastic Recoil Spectroscopy (ERS), Ion Scattering Spectroscopy (ISS), Residual Gas Analyzer (RGA), Dynamic/Static Secondary Ion Mass Spectroscopy, Laser Ionization Mass Spectroscopy (LIMS), Sputtered Neutral Mass Spectroscopy (SNMS), Glow Discharge Mass Spectroscopy (GDMS), Inductively Coupled Plasma Mass Spectroscopy, Inductively Coupled Plasma Optical Emission Spectroscopy, Neutron Diffraction, Neutron Reflectivity, Neutron Activation Analysis (NAA), Nuclear Reaction Analysis (NRA) and combinations thereof, the apparatus comprising:

one or more sensors, the one or more sensors attached to ^{a surface} surfaces on the ^{integrated circuit or micro-mechanical device} capital goods semiconductor substrate for collecting data therefrom;

an electronic device for processing data collected from the one or more sensors;

and an energy source for the electronic device, wherein said sensors and electronic device ^{integrated circuit or micro-mechanical device;} reside completely on the surface of the ^{capital goods} semiconductor substrate.

wherein the energy source is a battery functional at temperatures up to 150°C;
wherein the electronic device comprises an analog to digital converter, a signal conditioning device, ~~a data~~ and a solid state memory device for collecting data;
the apparatus further comprising an ~~external~~

external wireless receiving module wherein the collected data is transmitted digitally in
real-time from the electronic device to the external wireless receiving module,

the apparatus further comprising an
isolation material to protect the electronic device from hostile manufacturing or
processing environments.

and wherein the one or more
sensors, the electronic device components
and the battery are radiation hard.

2/8/07
THOMAS P. NOLAND
PRIMARY EXAMINER
GROUP 2800

Thomas P. Noland